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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,167	09/13/2005	Elger Funda	4662-524	5611
23117 7590 10/31/2008 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
HOBBS, LISA JOE				
ART UNIT		PAPER NUMBER		
1657				
MAIL DATE		DELIVERY MODE		
10/31/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/530,167

Applicant(s)

FUNDA ET AL.

Examiner

Lisa J. Hobbs

Art Unit

1657

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-18 and 22-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-18, 22-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Status

Claims 9-18 and 22-31 are active in the case. Claims 1-8 and 19-21 have been cancelled by amendment. Claims 9-18 and 22-31 are under examination; no claims are withdrawn as drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 31 recites the limitation "fat soluble active ingredient or colorant" in a composition "as in claim 22". There is insufficient antecedent basis for this limitation in the claims.

Claim 31 apparently should depend from claim 23, as mirror claim 18 depends from claim 10 in the other claim tree, since there is no antecedent basis in claim 22 for a composition of the modified lupin protein and a fat soluble active ingredient or colorant. For the purposes of this examination, the examiner has treated claim 31 as dependent from claim 23, not claim 22.

Claim Rejections - 35 USC § 102

The rejection of claims 9-18 under 35 U.S.C. 102(b) as being unpatentable over Perrier et al. is withdrawn in light of applicant's arguments presented 30 June 2008.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9-18 and 22-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perrier et al. (US 5912016 A). Perrier et al. teach obtaining a lupin protein by a process comprising using 0.75 g of lupin flour (ultrafine flour of sweet white lupin (CANA) containing

45% of proteins) is dispersed in 15 ml of acetate buffer of pH 7.4. The dispersion is agitated magnetically for 10 min and then centrifuged and the supernatant is separated off" and dispersed into various organic solvents, resulting in a solid sediment (Example 1). They also teach the use of the lupin protein in a composition comprising "various substances in suspension, for example pigments, in solution, for example a sugar such as glucose, or in emulsion, for example an oil, particularly a paraffin oil" and they find that it is "possible to encapsulate substances, particularly active principles, including lipophilic active principles such as vegetable, mineral or synthetic oil, vitamin A and vitamin E derivatives, etc., and hydrophilic active principles such as plant extracts, ascorbic acid, vitamin C PMG, glucose, organic pigments and inorganic pigments. It should be noted that within the description and the claims, " vitamin C PMG" signifies vitamin C magnesium phosphate" (col.8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Perrier et al. in order to obtain the invention as recited in the instant claims. Perrier et al. does include a step in which solvents that promote crosslinking between the lupin proteins are used on the composition which includes lupin protein, thus encouraging the formation of microparticles; they also teach the use of carboxylic acid salts in the encapsulation process. However, they also teach that, in the prior art, it is disclosed that protein alone can form crosslinked structures (as long as the solution can be kept in an alkaline state) (col. 1, lines 50-56). One would be motivated to generate this microparticulate structure in order to obtain a system that would stabilize organic compounds during storage prior to cosmetic or food use. One would have a reasonable expectation of success in that Perrier et al. teach that those of skill

in this art are aware that these plant proteins will form crosslinked structures and crosslinked structures promote stability for the compounds enclosed within.

Response to Arguments

Applicant's arguments filed 30 June 2008 have been fully considered but they are not persuasive. Applicants argue that Perrier et al. do not precisely teach the instant product and compositions comprising that product because the instant claims do not comprise a specific crosslinking step and agent to promote the crosslinking. However, the two product claims, 9 and 22 recite a lupin protein that has been converted into solid form, presumably including some crosslinking as is known to occur spontaneously with these proteins. Perrier et al. do not specifically teach that the protein has been converted to solid form before use in a composition, as is recited in the product claims, but one of skill in the art knows that if some time will pass before use or if the buffer of the instant protein solution is undesirable, one would dry down the protein mixture and use the solid in the next steps of the method.

The dependent claims, 10-18 and 23-31 recite compositions that comprise the lupin protein as stated in the independent claims and various adjuvants and excipients, which are also taught by Perrier et al. The wording of these claims does not preclude a step of exposure to a buffer that promotes crosslinking of the lupin proteins. The lupin proteins are produced and then are part of a composition which may comprise multiple substituents. Perrier et al. teach various compositions of lupin proteins, as well as other compounds that will be encompassed within the particles, and the buffers that will promote the creation of the particles. Thus the claims as recited are rendered obvious by the disclosure of Perrier et al.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa J. Hobbs whose telephone number is 571-272-3373. The examiner can normally be reached on Monday to Friday, 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon P. Weber can be reached on 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lisa J. Hobbs/
Primary Examiner
Art Unit 1657

ljh